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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,535	10/27/2003	Takeshi Hara	1924.68654	1907
24978	7590	09/14/2005	EXAMINER	
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606			WONG, KIN C	
		ART UNIT		PAPER NUMBER
				2651

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/694,535	HARA ET AL.
	Examiner K. Wong	Art Unit 2651

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 05 July 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 10-13 and 15 is/are rejected.  
7)  Claim(s) 14 is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 27 October 2003 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/27/03.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_ .

***Election/Restrictions***

Applicant's election with traverse of invention II (claims 10-15) in the reply filed on 7/5/05 is acknowledged. The traversal is on the ground(s) that examination of both groups would not place an undue burden on the examiner or searches. This is not found persuasive because the inventions are distinct separate inventions and have their own class and subclasses.

The requirement is still deemed proper and is therefore made FINAL.

Claims (1-9) are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/5/05.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims (10-13 and 15) are rejected under 35 U.S.C. 102(b) as being anticipated by Hamaguchi et al (6473254).

Regarding claim 10: Hamaguchi et al discloses a magnetic disk apparatus (in figure 3 of Hamaguchi et al) including a magnetic disk (element 12 in figure 3) having servo patterns (in figure 7 of Hamaguchi et al) on which position signals for controlling a position of a magnetic head (element 11 in figure 3) on the magnetic disk are written,

the magnetic head having a head sensitivity characteristic value (in col. 14, lines 16-25 of Hamaguchi et al which is in line with the instant specification on page 24, line 9 to page 25, line 12), including:

    a correction calculation unit that calculates a correction value to correct the position signals read from the servo patterns, using the head sensitivity characteristic value (in col. 13, lines 5-12 and col. 14, lines 16-43 where Hamaguchi et al describes the calculation functions for correcting position signal that read from the servo patterns); and

    a servo control unit that carries out a servo control of the magnetic head based on the correction value (in col. 14, line 60 to col. 15, line 17 of Hamaguchi et al). Thus, the recitations of the claim are consider satisfied because Hamaguchi et al discloses the head position correction that uses the head sensitivity characteristic value or sensitivity position coefficient.

Regarding claim 11: Hamaguchi et al teaches that wherein the head sensitivity characteristic value is set so as to change proportionally (in col. 13, line 66 to col. 14, line 43 of Hamaguchi et al).

Regarding claim 12: Hamaguchi et al teaches that wherein the head sensitivity characteristic value is set so as to change multi-value (in col. 14, lines 26-43 where Hamaguchi et al describes a profile that includes the multi change values).

Regarding claim 13: Hamaguchi et al teaches that wherein the correction unit corrects the position signals using an amplitude ratio of predetermined signals included

in the position signals, and the head sensitivity characteristic value (in col. 14, line 60 to col. 15, line 17 of Hamaguchi et al).

15. The magnetic disk apparatus according to claim 10, wherein the correction unit corrects the position signals, for each cylinder of the magnetic disk, using a different head sensitivity characteristic value set to each cylinder/(or radial positions)(in col. 14, lines 37-43 of Hamaguchi et al).

***Allowable Subject Matter***

Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record neither discloses nor suggests the position error in a disk drive that based on the “correction unit corrects the position signals using a ratio of an open loop gain obtained by adding a predetermined amplitude disturbance to a zero-cross frequency, and an open loop gain obtained by adding a large amplitude disturbance to the head sensitivity characteristic value” set forth in the recitation.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Abe (5978167), Bonaccio (5548452), Horisaki (EP0785542A1), Suzuki (5457587) and Takahashi (5833144) are cited for head position or head sensitivity.

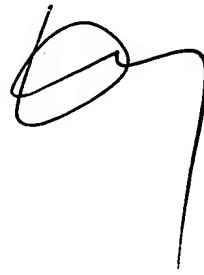
Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Wong whose telephone number is (571) 272-7566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kw

27 Aug 05

A handwritten signature consisting of a stylized, looped 'K' or 'B' shape followed by a vertical line.